Review of Peter M. Hammond and Gradon B. Carter, *From Biological Warfare to Healthcare: Porton Down, 1940-2000*

Susan M. Lindee
*University of Pennsylvania*, mlindee@sas.upenn.edu

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Review of Peter M. Hammond and Gradon B. Carter, *From Biological Warfare to Healthcare: Porton Down, 1940-2000*

**Abstract**
The British biological warfare laboratory established at Porton Down in 1940 occupies a special niche in the history of science and war. It has been a restricted and highly controlled space for the production of secret knowledge, and it has provoked sustained and enduring public controversy since as early as 1948. It has operated at the margin between the public and the secret, between offensive and defensive knowledge of pathogens, and between military research and health-care research. True and untrue rumors of novel diseases, infected research animals, accidents, suspicious deaths, and long-term contamination have focused on the facility for decades. The laboratory's staff scientists have also published many hundreds of respectable papers in scientific and medical journals. Porton Down is a place where the contradictions of twentieth-century biomedical science are clear and compelling.

**Disciplines**
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Peter Hammond and Gradon Carter have written a placid administrative history of Porton Down that has the virtue, perhaps unintentional, of presenting these contradictions simply because they cannot be avoided—they are intrinsic to the organization and operation of the facility, as this study makes clear. Hammond is the current head of Information Services at the Centre for Applied Microbiology and Research, the present name for the former biological weapons laboratory. Carter came to work at Porton Down in 1948 and retired in 1990 as head of the Technical Intelligence and Information Centre; he earlier wrote a history of Porton Down for its seventy-fifth anniversary. Their current book together was not commissioned by the organization. It is, however, introduced with a foreword from the current director, Jack Melling, and it is clearly a sympathetic insider account.

The biological weapons laboratory was located at Porton Down, on the Salisbury plain near Stonehenge, because of the presence there of a chemical weapons research facility. One of the laboratory’s first grand experiments also became one of its most notorious: the detonation of a series of well-armed anthrax devices in thirteen tests on Gruinard, a remote island off Scotland. Requisitioned from a local farmer by the War Department in 1942, the island was supposed to be returned to him after the war—but the bomb tests in 1942 and 1943, while providing data about dispersal patterns and infective rates in sheep, also seriously contaminated the soil. When its owner wanted the island back, he could not even be told why it was unavailable. In any case, rumors had already started among local residents, after livestock on the mainland died of anthrax. Eventually, in the 1980s, Gruinard was cleaned up, and it was officially returned to the heirs of that farmer in 1990.

Scientists at Porton Down conducted many other field trials of biological weapons and simulated biological weapons (nonpathogenic organisms like *Bacillus subtilis*) from 1942 to 1977. Generally they were exploring how such weapons might be used against British populations, and also how they might be deployed
against an enemy—every field trial had that dual quality, as indeed does most biological weapons research. The account included here of the many sea trials suggests just how difficult the deployment of biological weapons could be. The authors propose that the field trials showed that BW could be effective, but that conclusion is not entirely supported by their reconstruction of the trials.

Hammond and Carter are experienced writers of government reports, and their writing style tends to be administrative. Given the public outrage over the years, they may have expected a general readership, but I doubt that many general readers will be able to sustain an interest in the fine details of facilities construction, equipment, personnel, and administration included here. Most of the sources used are internal Porton Down documents that became public in the early 1990s. There are no shocking revelations, though there is a keen attention to texture and specifics that provides insight into the organization. There is also minimal attention to the broader context: major international agreements relating to biological weapons are handled with efficiency, in a paragraph or two, and policy shifts in biological weapons theory in Britain are explored only in relation to their impact on activities at Porton Down. Yet, perhaps because it is so obsessively focused, the book is a useful resource for historians of science and war, and worth reading for the details alone.

Porton Down’s biology laboratory became a part of the Public Health Service in 1979. In the 1980s, it developed ties to commercial biotechnology. In the Gulf War, it produced anthrax vaccines for British troops. The history of the development and testing of biological weapons has a special urgency in the present, as anthrax again seems to threaten citizens in powerful nations. The role of scientists as producers of dangerous knowledge has provoked a congressional debate in the United States about possible governmental censorship of scientific papers. Genetic technologies add a layer of potential efficacy unimagined in earlier times. This history of Porton Down is therefore a contribution to a critical ongoing public debate.

Susan Lindee
University of Pennsylvania


Historians may face writing about contemporary questions with a mixture of excitement and apprehension—excitement at reaching a broad policy world